

Computational Organismal Biology Ecology and Evolution (COBEE)

Students must complete a total of 90 credits of study with a minimum of 35 credits of coursework [17 credits of coursework in the first year]. Of the 35 credits of coursework, *at least 28 credits* must be earned in graduate level quantitative/computational courses. Graduate level courses approved by the other tracks in the Complex Biosystems PhD will count towards the remaining credits. Other courses will count with permission of the student's supervisory Committee.

The following quantitative courses will count toward the 28 credits of quantitative/computational coursework.

Organismal Biology		Evolution		Ecology		Stat and Computation	
BIOS 406/806	Insect Ecology	BIOS 803	Princ of Evolution	BIOS805	Princ of Ecology	BIOS428/828	Perl Programming
BIOS462/862	Animal Behavior	AGRO919	Plant Genetics	BIOS824	Fund of Ecol and Evol Physiology	CSCE874	Data Mining
BIOS468/868	Field Animal Behavior	ASCI932	Quant Animal Genetics	BIOS958	Genetic Ecology	MATH439/839	Math Mod in Biol
BIOS429/829	Phylo Biol	ASCI933	Quant Animal Genetics II	GEOL 438/838	Biogeochemical Cycles	BIOS/NRES 456/856	Math Mod in Biol
BIOS825	Plant Biotech	AGRO931	Pop Gen	NRES810	Landscape Ecology	MATH496/896	Math Aspects of Bioinfo
NRES 406/806	Plant Ecophysiology	AGRO932	Bio Gen and Plant Breeding	NRES862	Conservation Biology	STAT841	Stat Meth for Biol Data
AGRO426/826	Invasive Plants	BIOS818	Advanced Genetics	NRES459/859	Limnology	MATH938	Math Modeling
NRES489/889	Ichthyology	BIOS958	Genetic Ecology	NRES481/881	Stream and River Ecology	STAT802	Design and Analy of Res Studies
NRES807	Plant-Water Relations	BIOS829	Phylo Biol	GEOL418/818	Chem of Natural Waters	STAT803	Ecol Stat
NRES880	Vertebrate Population Analysis	BIOS924	Molecular Phylogen	NRES424/824	Forest Ecology	STAT831	Spatial Stat
BIOS879	Plant Growth and Development	BIOS952	Phylo Co-Evolution	NRES450/850	Biology of Wildlife Popns	STAT884	Applied Stochastic Models
BIOS475/875	Ornithology	BIOS477/877	Bioinfo and Mol Ecol	NRES463/863	Fisheries Science	STAT950	Bootstrap Methods and App
BIOS476/876	Mammology	BIOS427/827	Prac Bioinfo Lab	BIOS454/854	Ecological Interactions	BIOS951	Quantitative Analysis in Biology
BIOS804	Principles of Behavioral Ecology	AGRO 840	Bioinfo App in Ag	BIOS457/857	Ecosystem Ecology		
BIOS813&814	Animal Physiology			BIOS452/852	Field Epi		
BIOS817	Plant-Water Relations			BIOS453/853	Predator Ecology		
BIOS955	Advanced Behavioral Ecology			BIOS470/870	Prairie Ecology		

BIOS956	Biochemical Adaptation			BIOS860	Advanced Limnology		
				BIOS953	Advanced Population Ecol		
				BIOS959	Advanced Community Ecology		